

INCH-POUND

MIL-PRF-24236/20J

w/ Amendment 2

23 February 2004

SUPERSEDING

MIL-PRF-24236/20J

22 January 2001

PERFORMANCE SPECIFICATION SHEET

SWITCHES, THERMOSTATIC, (BIMETALLIC), SUBMINIATURE, TYPE I,
HERMETICALLY SEALED, SINGLE POLE, SINGLE THROW (SPST),
2 AMPERES AND LOW LEVEL

This specification is approved for use by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the product described herein shall consist of this specification sheet and the issue of the following specification listed in that issue of the Department of Defense Index of Specifications and Standards (DODISS) specified in the solicitation: MIL-PRF-24236.

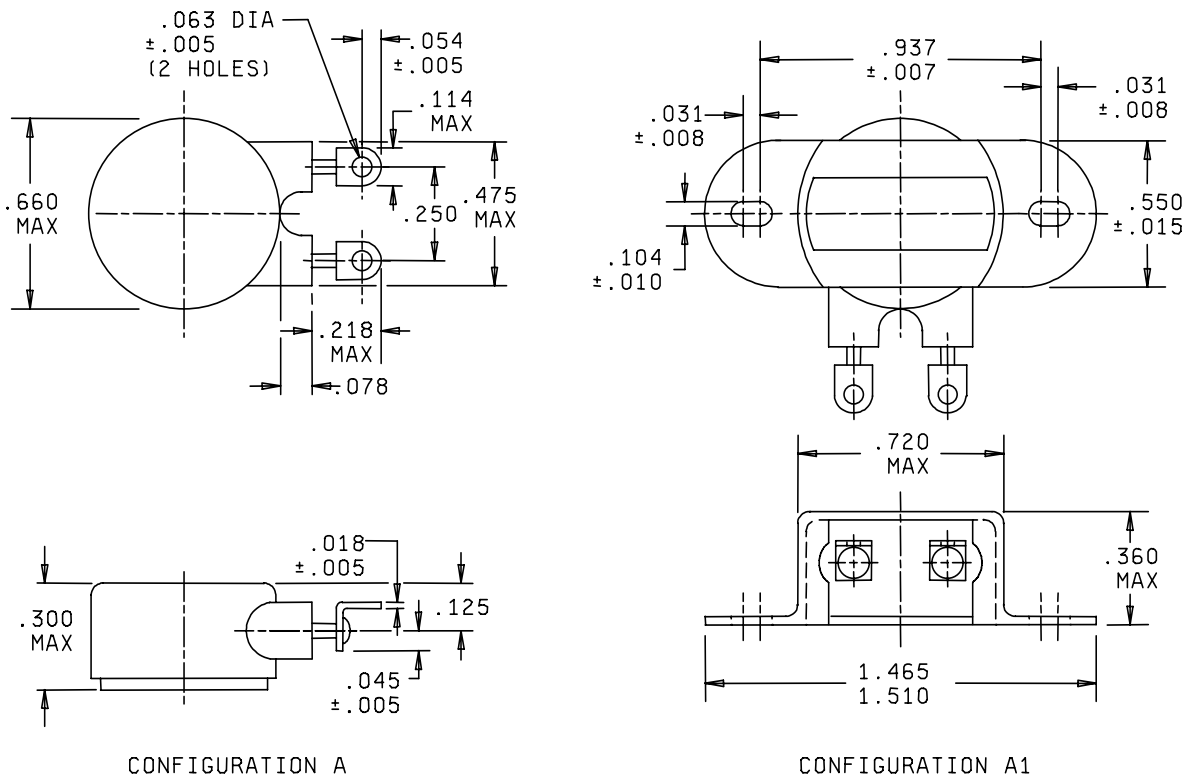


FIGURE 1. Switches.

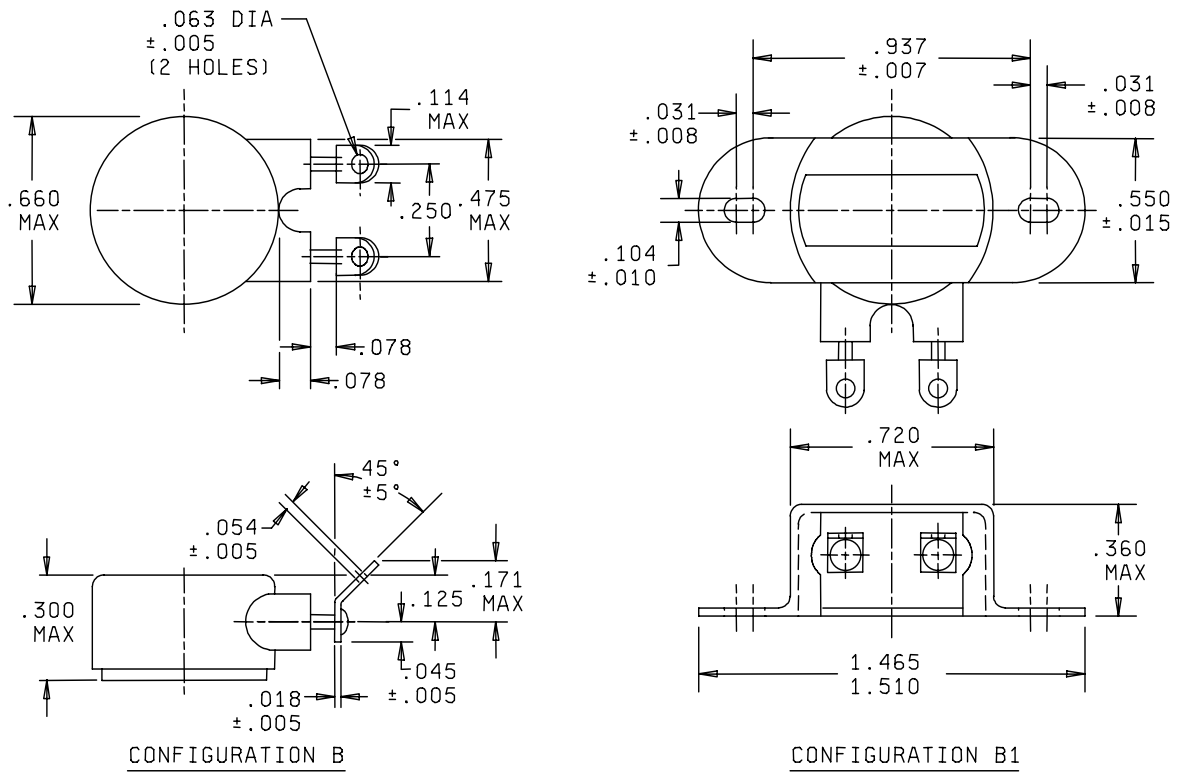


FIGURE 1. Switches - Continued.

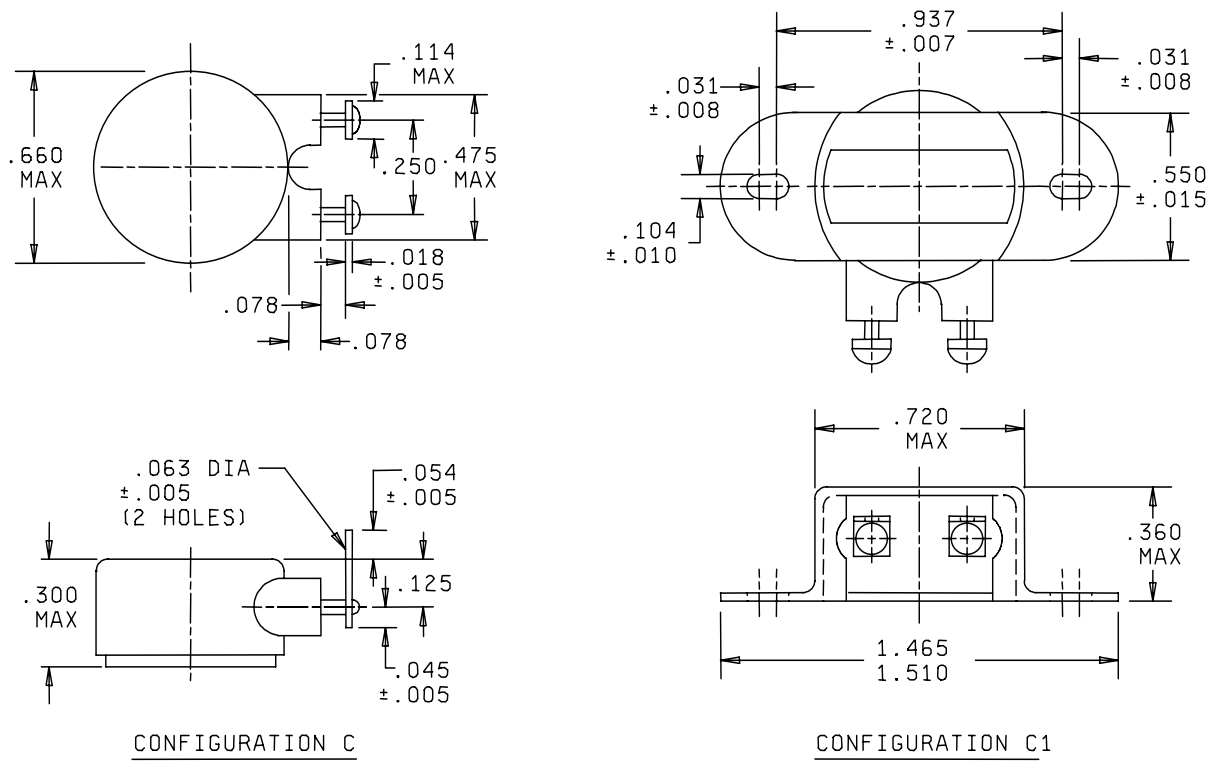
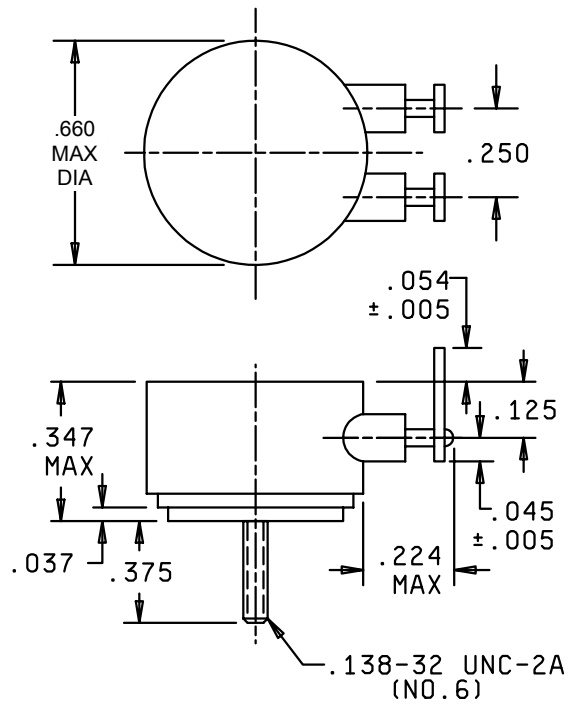


FIGURE 1. Switches - Continued.

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CONFIGURATION D

Inches	mm	Inches	mm	Inches	mm	Inches	mm
.005	0.13	.045	1.14	.138	3.51	.375	9.53
.007	0.18	.054	1.37	.171	4.34	.475	12.06
.008	0.20	.063	1.60	.218	5.54	.550	13.97
.010	0.25	.073	1.85	.224	5.69	.660	16.76
.015	0.38	.078	1.98	.250	6.35	.720	18.29
.018	0.46	.104	2.64	.300	7.62	.937	23.80
.031	0.79	.114	2.90	.347	8.81	1.465	37.21
.037	0.94	.125	3.18	.360	9.14	1.510	38.35

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Unless otherwise specified, tolerance is $\pm .015$ (0.38 mm).
4. Switch case material is steel, nickel plated.
5. Removable mounting brackets furnished for use with configurations A1, B1, and C1 are made of stainless steel.

FIGURE 1. Switches - Continued.

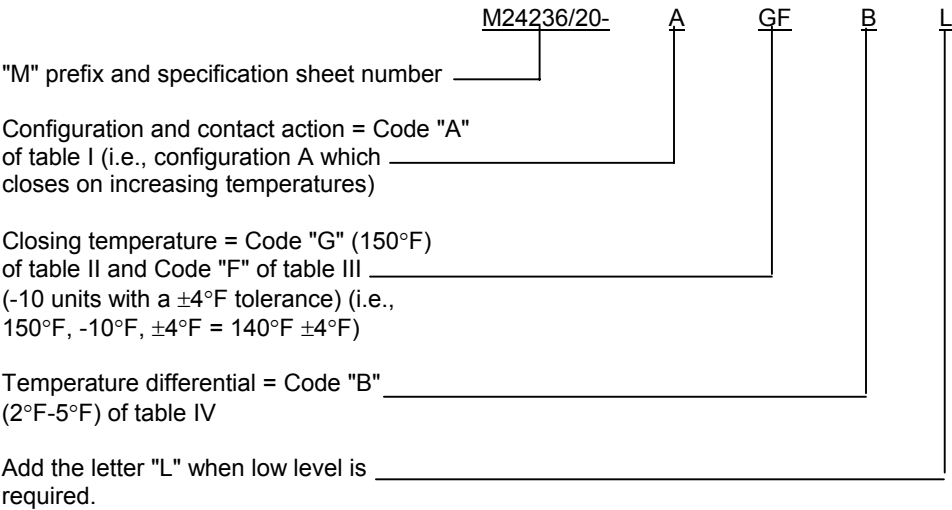
REQUIREMENTS:

- Dimensions and configuration: See figure 1 and table I.
- Operating temperature range: -10°F to +300°F.
- Class: 4, except vibration 10 to 2,000 Hz, 10G.
- Mounting: See table I and figure 2.
- Weight: Not to exceed 12 grams, including mounting bracket.
- Dielectric withstanding voltage: 70,000 feet - 350 V ac.
- Operating temperature and tolerance: See tables II, III, and IV.
- Electrical ratings: See table V.
- Endurance test: See table V.
- Low level: When specified, see part number information, 250,000 cycles.

QUALIFICATION:

- Single submission: Restricted to switch submitted.
- Group submission: See table VI.

Part number: Consists of "M" prefix followed by specification sheet number; a dash (-); and a four letter code. The four or five letter code identifies the configuration and contact action (code from table I); operating temperature (temperature to the nearest 25°F, code from table II, and temperature setting to the nearest 5°F with applicable tolerance, code from table III); and temperature differential (code from table IV). The five-letter code used in the following example identifies a low level switch of configuration A (figure 1) which closes on increasing temperature at 140°F \pm 4°F and opens on decreasing temperature 2°F to 5°F below the actual closing temperature. Use the letter "L" as a suffix for the part number when a low level switch is required.



"TABLE I. Configuration and contact action.

	Configuration							Contact action
	A	A1	B	B1	C	C1	D	
	Code- - - - -							
Code- - - - -	A	C	E	G	J	L	1	Close on increasing temperature
Code- - - - -	B	D	F	H	K	M	2	Close on decreasing temperature
Code <u>1</u> / - - -	N	Q	S	U	W	Y	3	Open on increasing temperature
Code <u>2</u> / - - -	P	R	5	V	X	Z	4	Open on decreasing temperature

1/ Cancelled, use the "Close on decreasing temperature" codes. These will provide the same desired function.

2/ Cancelled, use the "Close on increasing temperature" codes. These will provide the same desired function.

TABLE II. Temperature setting to the nearest 25°F.

Temperature	Code	Temperature	Code <u>1</u> /
°F		°F	
0	A	175	H
25	B	200	J
50	C	225	K
75	D	250	L
100	E	275	M
125	F	300	N
150	G	(maximum)	

1/ Temperature setting codes P, Q, R, and S, for temperatures 325, 350, 375, and 400°F respectively, have been cancelled without replacement.

TABLE III. Temperature setting to the nearest 5°F.

Units	Tolerance		
	±3°F <u>1</u> /	±4°F	±5°F
-10	A	F	L
- 5	B	G	M
0	C	H	N
+ 5	D	J	P
+10	E	K	Q

1/ Available to 250°F only.

TABLE IV. Temperature differential.

Operating temp range	Code	Available differential
-10°F to +250°F	A	2°F - 4°F
	B	2°F - 5°F
-251°F to +300°F	C	3°F - 7°F

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TABLE V. Electrical ratings.

Load	28 V dc	115 V ac, 60 Hz	Life cycles
	(amperes)	(amperes)	
Resistive	2.0	2.0	250,000
Inductive	1.0	1.5	250,000
Lamp	1.0	0.5	250,000
Low level ratings			
	30 milli-volts dc <u>1/</u>		
Resistive	10 milli-amperes		250,000

1/ Or 30 millivolts peak ac.

TABLE VI. Extent of qualification.

Configuration	Number of samples required	Tests	Qualifies
All	All in accordance with qualification table of MIL-PRF-24236	Complete in accordance with qualification inspection of MIL-PRF-24236	All
A, B, B1, C, C1, D	2 each	Visual and mechanical	

Reference Documents
MIL-PRF-24236

The margins of this specification are marked with vertical lines to indicate where modifications from this amendment were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations.

Custodians:
Army - CR
Navy - EC
Air Force - 11
DLA - CC

Preparing activity:
DLA - CC
(Project 5930-1792)

Review activities:
Army - AR, AT, AV CR4, MI
Navy - AS, CG, MC, OS, SH
Air Force - 19, 99

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at www.dodssp.daps.mil/.